

CLAIMS

1. A connector comprising:

a tubular male joint member;

5 a liquid passage portion having a liquid passage space defined therein in fluid communication with an interior of said male joint member;

a first female joint port and a second female joint port each of which is capable of receiving a tube;

10 a first valve body made of an elastic material and having a top slit defined in a top thereof and a side slit defined in a side thereof, said first valve body being deformable to open said top slit and said side slit when the tube is connected to said first female joint port; and

15 a second valve body made of an elastic material and having a top slit defined in a top thereof and a side slit defined in a side thereof, said second valve body being deformable to open said top slit and said side slit when the tube is connected to said second female joint port;

20 wherein said side slit of said first valve body and said side slit of said second valve body face said liquid passage space;

25 when the tube is connected to said first female joint port, an interior of the tube and the interior of said male joint member communicate with each other through said top slit and said side slit of said first valve body and said liquid passage space; and

when the tube is connected to said second female joint port, an interior of the tube and the interior of said male joint member communicate with each other through said top slit and said side slit of said second valve body and said liquid passage space.

2. A connector according to claim 1, wherein said first female joint port or said second female joint port and said male joint member have respective central lines extending substantially parallel to each other.

3. A connector according to claim 1 or 2, wherein said liquid passage portion, said first valve body, and said second valve body are integrally formed with each other.

4. A connector according to claim 1 or 2, wherein at least one of said first female joint port and said second female joint port is axially movable relatively to the corresponding valve body.

5. A connector according to claim 1 or 2, wherein said first valve body and said second valve body have respective central lines, which are skew lines.

6. A connector according to claim 5, wherein said first female joint port is axially movable relatively to said first valve body, and said second female joint port is

axially movable relatively to said second valve body.

7. A connector comprising:

a tubular male joint member;

5 a liquid passage portion having a liquid passage space defined therein in fluid communication with an interior of said male joint member;

a housing having a female joint port which is capable of receiving a tube; and

10 a valve body made of an elastic material and housed in said housing, said valve body being fixedly disposed with respect to said male joint member and having a top slit defined in a top thereof and a side slit defined in a side thereof, said valve body being deformable to open said top slit and said side slit when the tube is connected to said
15 female joint port;

wherein said side slit of said valve body faces said liquid passage space;

said housing is axially movable relatively to said
20 valve body;

when the tube is to be connected to said female joint port, said housing is moved with respect to said valve body to insert the tube into said female joint port; and

when the tube is connected to said female joint port,
25 an interior of the tube and the interior of said male joint member communicate with each other through said top slit and said side slit of said valve body and said liquid passage

space.

8. A connector according to claim 1, 2, or 7, further comprising a solid pin for being inserted into said top slit to spread said top slit when the tube is connected.

9. A connector comprising:

a tubular male joint member;

a liquid passage portion having a liquid passage space defined therein in fluid communication with an interior of said male joint member;

a female joint port which is capable of receiving a tube;

a valve body made of an elastic material and having a top slit defined in a top thereof, a side slit defined in a side thereof, and a hollow space, said valve body being deformable to open said top slit and said side slit when the tube is connected to said female joint port; and

a solid pin positioned in the hollow space of said valve body;

wherein said side slit of said valve body faces said liquid passage space;

when the tube is connected to said female joint port, the tube presses a top surface of said valve body to compress said valve body axially, thereby opening said side slit and inserting said pin into said top slit to spread said top slit, so that an interior of the tube and the

interior of said male joint member communicate with each other through said top slit and said side slit of said valve body and said liquid passage space.

- 5 10. A connector according to claim 1, 2, 7, or 9, wherein said liquid passage space is of a shape for preventing a liquid from being trapped therein when the liquid flows in said liquid passage space.